# 4.2.B. 0604000402 (Buffalo River).

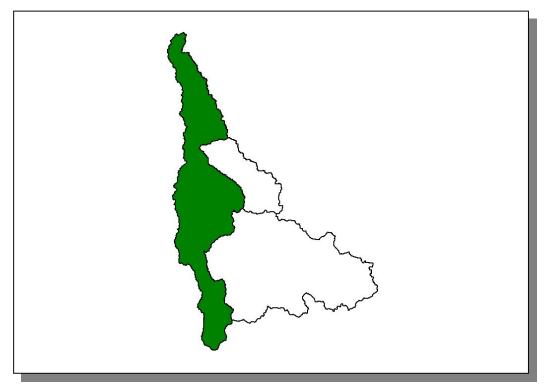


Figure 4-13. Location of Subwatershed 0604000402. All Buffalo River HUC-10 subwatershed boundaries are shown for reference.

## 4.2.B.i. General Description.

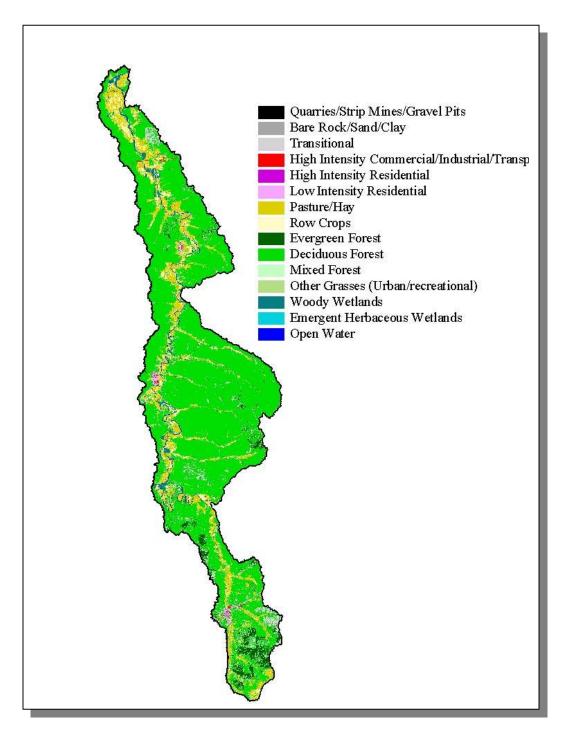


Figure 4-14. Illustration of Land Use Distribution in Subwatershed 0604000402.

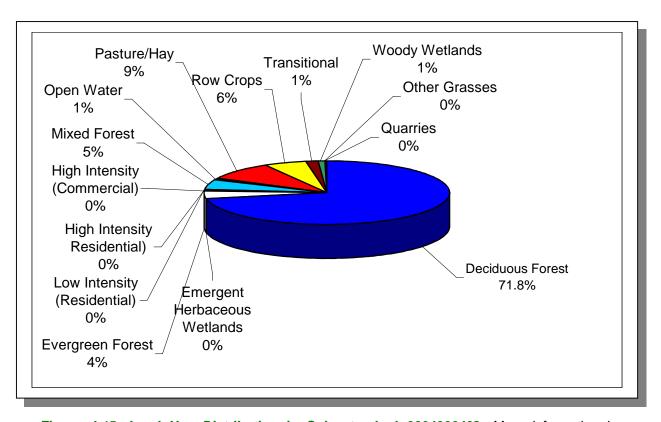


Figure 4-15. Land Use Distribution in Subwatershed 0604000402. More information is provided in Appendix IV.

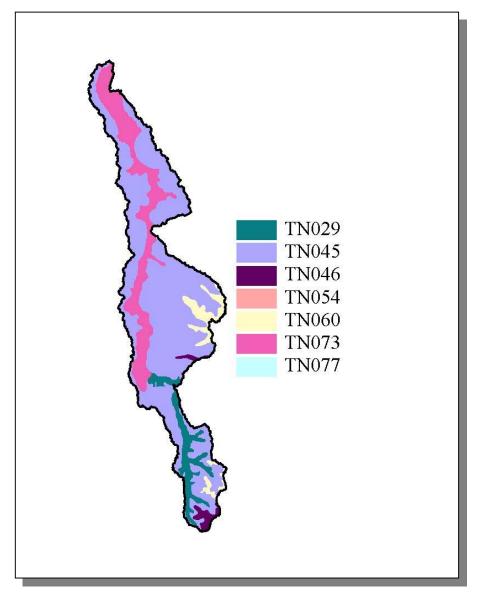


Figure 4-16. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0604000402.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN029	8.00	С	2.96	5.40	Loam	0.33
TN045	0.00	В	1.95	5.45	Loam	0.35
TN046	0.00	В	1.98	5.09	Silty Loam	0.38
TN054	0.00	С	3.04	4.84	Loam	0.32
TN060	5.00	В	1.30	5.32	Silty Loam	0.39
TN073	0.00	В	2.97	5.21	Loam	0.34
TN077	4.00	С	2.16	5.03	Loam	0.34

Table 4-9. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0604000402. More information is provided in Appendix IV.

	COUNTY POPULATION			ESTIMATED POPULATION IN WATERSHED				
County	1990	1997	2000	Portion of Watershed (%)	1990	1997	2000	% Change (1990-1997)
Hickman	16,754	19,926	22,295	0.68	114	135	151	32.5
Humphreys	15,795	16,839	17,929	7.41	1,171	1,248	1,329	13.5
Lewis	9,274	10,789	11,367	1.16	107	125	132	23.4
Perry	6,612	7,438	7,631	43.42	2,871	3,229	3,313	15.4
Wayne	13,935	16,498	16,842	11.67	1,626	1,925	1,965	20.8
Totals	62,343	71,490	76,064		5,889	6,662	689	17.0

Table 4-10. Population Estimates in Subwatershed 0604000402.

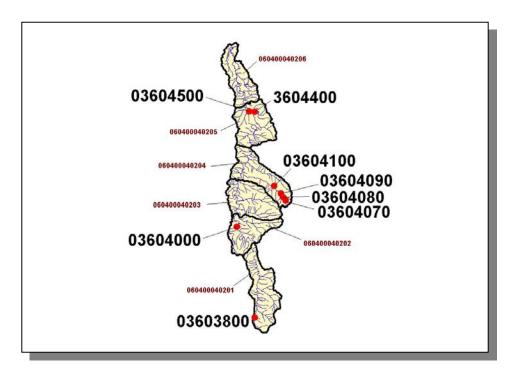


Figure 4-17. Location of Historical Streamflow Data Collection Sites in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040205, and 060400040206 boundaries are shown for reference. More information is provided in Appendix IV.

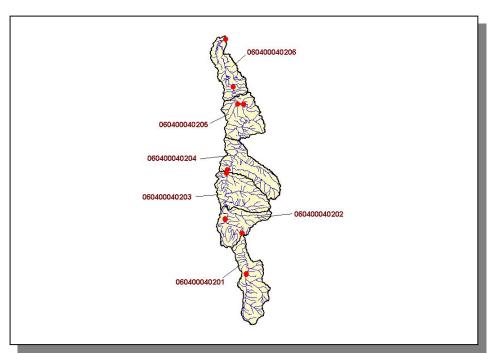


Figure 4-18. Location of STORET Monitoring Sites in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206, boundaries are shown for reference. More information, including site names and locations, is provided in Appendix IV.

## 4.2.B.ii. Point Source Contributions.

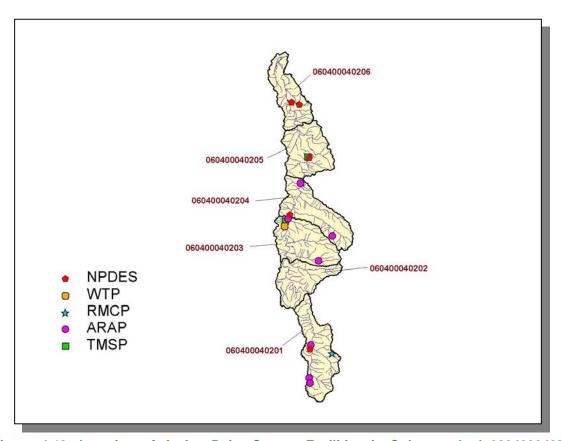
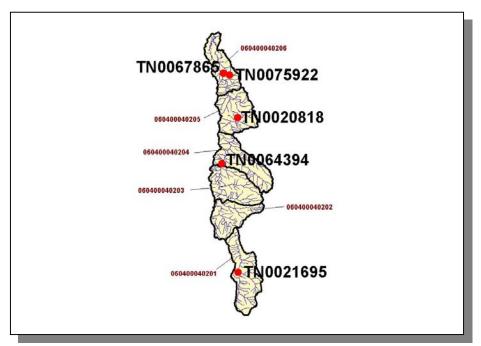


Figure 4-19. Location of Active Point Source Facilities in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-20. Location of NPDES Facilities in Subwatershed 0604000402.** Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

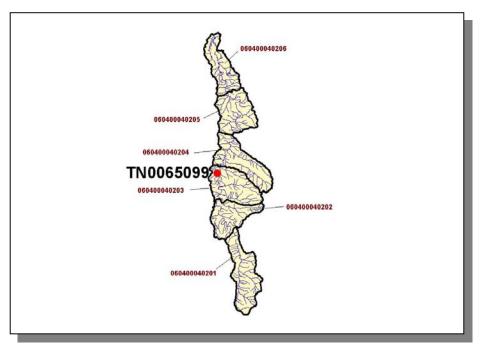


Figure 4-21. Location of Water Treatment Plants in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

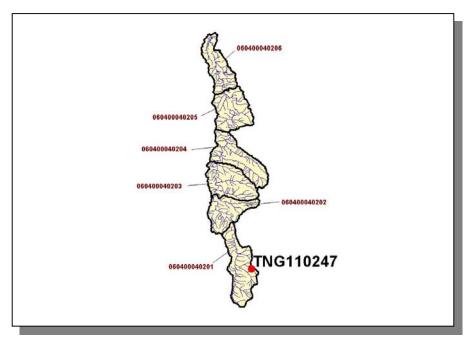


Figure 4-22. Location of Ready Mix Concrete Plants in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

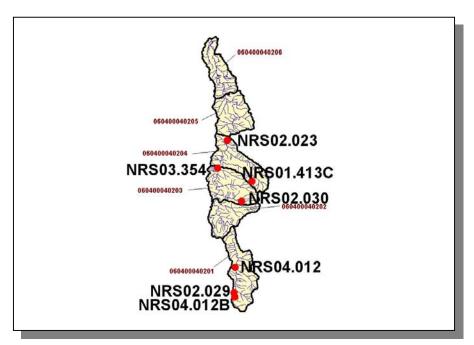


Figure 4-23. Location of ARAP Sites (Individual Permits) in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

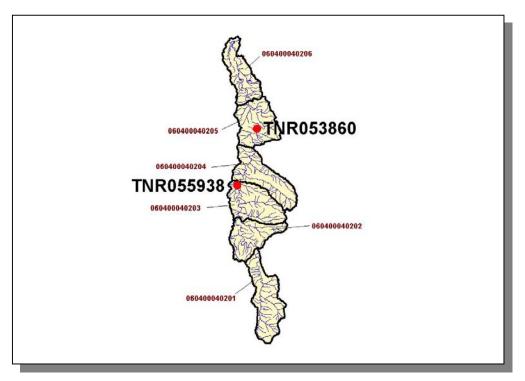


Figure 4-24. Location of TMSP Facilities in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

#### 4.2.B.ii.a. Dischargers to Water Bodies Listed on the 2002 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2002 303(d) list in Subwatershed 0604000402:

 TN0075922 (Pilot Travel Center #053) discharges to an unnamed Tributary to Black Branch

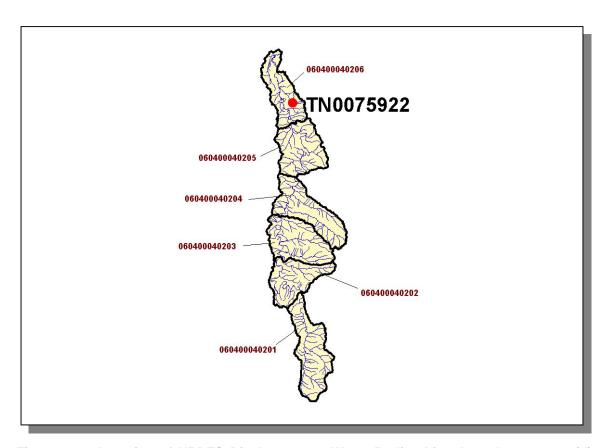


Figure 4-25. Location of NPDES Dischargers to Water Bodies Listed on the 2002 303(d) List in Subwatershed 0604000402. Subwatershed 060400040201, 060400040202, 060400040203, 060400040204, 060400040205, and 060400040206 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0075922	0		0	0	

**Table 4-11. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0604000402.** Data are in million gallons per day (MGD). Data were obtained from the USGS publication <u>Flow Duration and Low Flows of Tennessee Streams Through 1992</u> or from permit files.

PERMIT #	WET	TSS	рН
TN0075922	Χ	Χ	Χ

Table 4-12. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0604000402. WET, Whole Effluent Toxicity; TSS, Total Suspended Solids.

PERMIT #	OIL and GREASE	BENZENE	
TN0075922	X	Χ	

Table 4-13. Organic Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0604000402.

#### 4.2.B.iii. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
6,609	12,861	86	21	9	1,148	26

Table 4-14. Summary of Livestock Count Estimates in Subwatershed 0604000402. According to the 1997 Census of Agriculture (<a href="http://www.nass.usda.gov/census/">http://www.nass.usda.gov/census/</a>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

	INVEN	TORY	REMOVAL RATE		
	Forest Land	Timber Land	Growing Stock	Sawtimber	
County	(thousand acres)	(thousand acres)	(million cubic feet)	(million board feet)	
Hickman	297.2	297.2	5.8	23.0	
Humphreys	241.2	241.2	3.7	14.4	
Lewis	158.0	158.0	4.0	10.2	
Perry	223.6	223.6	5.1	22.0	
Wayne	372.6	372.6	14.1	41.1	
Total	1,292.6	1,292.6	32.7	110.7	

Table 4-15. Forest Acreage and Average Annual Removal Rates (1987-1994) in Subwatershed 0604000402.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.73
Legumes (Pastureland)	0.68
Grass (Hayland)	0.16
Legumes (Hayland)	1.92
Legumes, Grass (Hayland)	0.08
Grass, Forbs, Legumes (Mixed Pasture)	0.43
Forest Land (Not Grazed)	0.00
Forest Land (Grazed)	0.00
Corn (Row Crops)	7.14
Sorghum (Row Crops)	4.48
Soybeans (Row Crops)	21.82
Tobacco (Row Crops)	7.68
Other Cropland not Planted	0.65
Conservation Reserve Program Lands	0.11
Non-Agricultural Land Use	0.00
Other Land in Farms	0.99
Farmsteads and Ranch Headquarters	0.40

Table 4-16. Annual Estimated Total Soil Loss in Subwatershed 0604000402.